United States Environmental Protection Agency
Region 1
RCRA Inspection Report

Date: September 12, 2012

From: Linda Brolin, Environmental Engineer
RCRA, EPCRA, and Federal Programs Unit

Thru: Lisa Papetti, Senior Enforcement Coordinator
RCRA, EPCRA, and Federal Programs Unit

To: RCRA Enforcement File

Subj: RCRA Compliance Evaluation Inspection of Purification Technologies, Inc.
Chester, Connecticut

I. GENERAL INFORMATION

A. Facility Name:
Purification Technologies, Inc.
67 Winthrop Street
Chester, CT 06412

B. Responsible Official:
Jerry Richard, President
Purification Technologies, Inc.
67 Winthrop Street
Chester, CT 06412
860-526-7801 x119
jrichard@purificationtech.com

C. Date of Inspection:
June 27, 2012

D. Purpose of Inspection:
RCRA Compliance Evaluation Inspection (CEI)

E. Persons Participated in the Inspection:
Linda Brolin and Donald MacLeod, USEPA Office of Environmental Stewardship, RCRA, EPCRA and Federal Programs Unit
Jerry Richard, President, Purification Technologies, Inc.

II. RCRA Reporting/Information Requirements

A. Facility Identification Number:
CTCESQG99999
CTR000511436

B. Type of Operation:
Conditionally Exempt Small Quantity Generator (CESQG)

C. Date of Notification of Hazardous Waste Activity:
No date in RCRAInfo

III. Recent Inspection and Enforcement History

None

IV. General Facility Description

Purification Technologies Inc. (PTI) operates a facility (NAIC code 325199) at 67 Winthrop Street, Chester, CT 06412. Purification specializes in removing trace organic impurities from acetonitrile 99.97% using ozone oxidation. PTI markets their products to the following industries: DNA synthesis, pharmaceutical companies, and peptite purification. At the time of the inspection, 18 people were employed at Purification. The facility operates two to three shifts, (depending on demand) with the first shift hours of 8:00 am - 5:00 pm.

PTI has one 30,000 sq. ft building on-site. See Attachment 1 for the facility diagram. The main hazardous waste storage area (HWSA) is located in the Bulk Fill Process Area. According to Jerry Richard, Purification generates waste flammable liquids (acetonitrile, methanol), D001. Wastes from the recovery system cycles back to the process for reprocessing or they sell it for lower grade applications. The carbon from the carbon beds goes back to the supplier. The universal waste lamps, batteries, ballasts were stored in the General Storage and Cylinder Maintenance Area. The Satellite Accumulation Areas are located in the Labratory. Clean Harbors was their waste hauler. The waste lamps go to National Lamp Recycling. The facilities scrap metal is recycled at Calamari located in Essex, CT.

Purification was notified in RCRAInfo as a conditionally exempt small quantity generator.

V. Physical Inspection

Linda Brolin and Donald MacLeod, (the "inspection team") arrived at the facility at approximately 8:50 am on June 27, 2012. Upon meeting Mr. Richard, the inspection team presented their credentials and business cards and explained the purpose of the inspection. Inspectors were in the presence of Purification representatives at all times during the inspection except for short periods of time during the records review. Photographs were taken during the inspection.

The following describes the observations made during the physical inspection:

Hazardous Waste Storage Area

The Hazardous waste storage area was located inside next to the Bulk Fill Process Area. The area was equipped with a fire extinguisher and a spill control equipment kit. The phone was located within twenty-five feet with phone numbers posted. The building has a fire suppression system and an alarm system. The inspection team observed the following containers located on spill pallets, in the hazardous waste storage area:

Table 1 - Hazardous Waste

Number and Size	Label	Open/Closed
2 55-gallon	Flammable liquids, acetonitrile, methanol, UN 1993, D001, 5/1/2012, 6/16/2012	Closed

Universal Waste Storage Area (Photos #4 - #6)

The universal waste storage area was located in the General Storage and Cylinder Maintenance Area. The inspection team observed the following containers in the Universal Waste Storage Area:

1four ft. cardboard box with three waste lamps, labeled, "used lamps" and with no date;
1 three ft. cardboard box, labeled, "used lamps" and with no date;
1 5-gallon container with two nickel cadmium batteries, with no label and no date;
1 5-gallon container with used ballasts, with no label and no date.

Laboratory (Photos #1- #3)

The inspection team met Emilio Cruz, Quality Control Manager. The lab tests the in-process and the finished product testing, using UV spectrometry, scanning spectrometry, and waters acquity ultra performance LC. The chemists measure anolytes to verify the absence of impurities. The inspection team observed the following closed SAA container located outside the Main Laboratory:
1 5-gallon container, labeled, "hazardous waste, flammable liquid". There was no description of the contents on the label of this container. Emilio Cruz corrected the label at the time of the inspection.

The inspection team observed the following closed SAA containers located in the Main Laboratory:

1 5-gallon container, attached to the following instrument, Waters Acquity ultra performance LL, labeled, "hazardous waste, flammable liquid, acetonitrile, methanol, D001"

1 5-gallon container, attached to the following instrument, Waters Acquity ultra performance LL, labeled, "hazardous waste, flammable liquid, acetonitrile, methanol, D001"

1 5-gallon container, attached to the following instrument, Agilent HPLC, labeled, "hazardous waste, flammable liquid, acetonitrile, methanol, D001"

1 5-gallon container, attached to the following instrument, Agilent HPLC, labeled, "hazardous waste, flammable liquid, acetonitrile, methanol, D001"

The retain samples are stored in a flammable cabinet. The facility keeps the retains until the tank wagon comes back. The retains go back into the process, according to Jerry Richard.

VI. Record Review

The following records were reviewed as an element of the inspection:

A. Hazardous Waste Manifests

A sampling of manifests dated 2009 - 2012 were reviewed. The manifests reviewed appeared current, complete, timely, and with LDR notifications. The wastes documented in the records corresponded to those observed during the inspection. Emilio Cruz and Lonne Leary signed the waste manifests. Wastes identified on manifests included: waste flammable liquids (D001), and non DOT regulated material (alumina) CR05.

VII. Outbrief

An outbrief was conducted at the conclusion of the inspection. The following people attended the outbrief:

Linda Brolin, USEPA
Donald MacLeod, USEPA
Jerry Richard, President, Purification Technologies, Inc.
Gail Norling, Business Administration Manager,PurificationTechnologies, Inc.
Emilio Cruz, Quality Control, Purification Technologies, Inc.
Alan Prince, Engineering & Operations Manager, Purification Technologies, Inc.

The following issues were discussed during the outbrief:

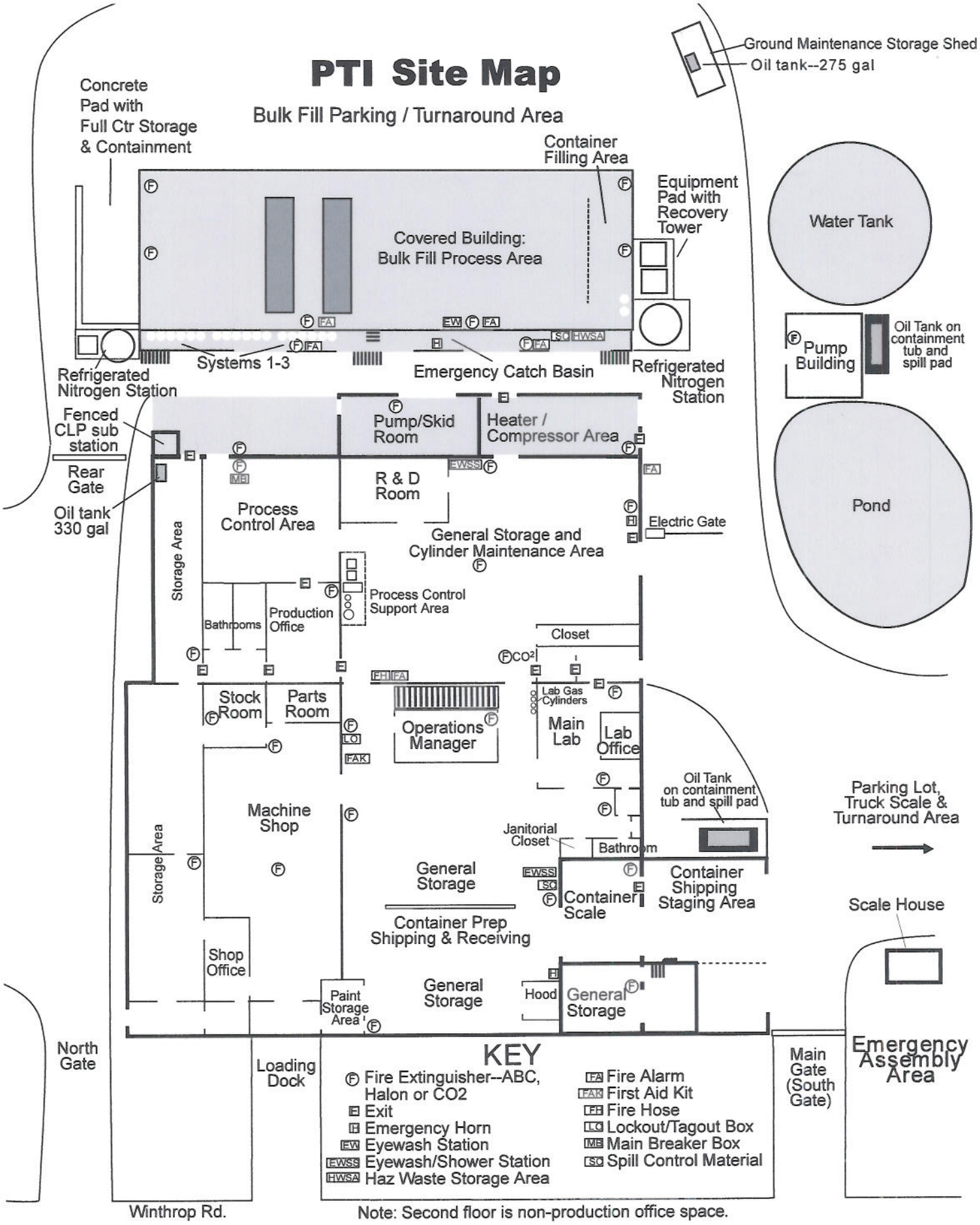
Failure to include the description of the contents on the hazardous waste label on the SAA container located outside the Laboratory. The label was corrected at the time of the inspection;

Failure to date container of universal waste lamps, located in the General Storage and Cylinder Maintenance Area. Failure to label and date one container with used ballasts and one container with used nickel cadmium batteries, located in the General Storage and Cylinder Maintenance Area.

Before leaving, the inspection team summarized the enforcement tools available to EPA including informal responses and formal responses with penalties.

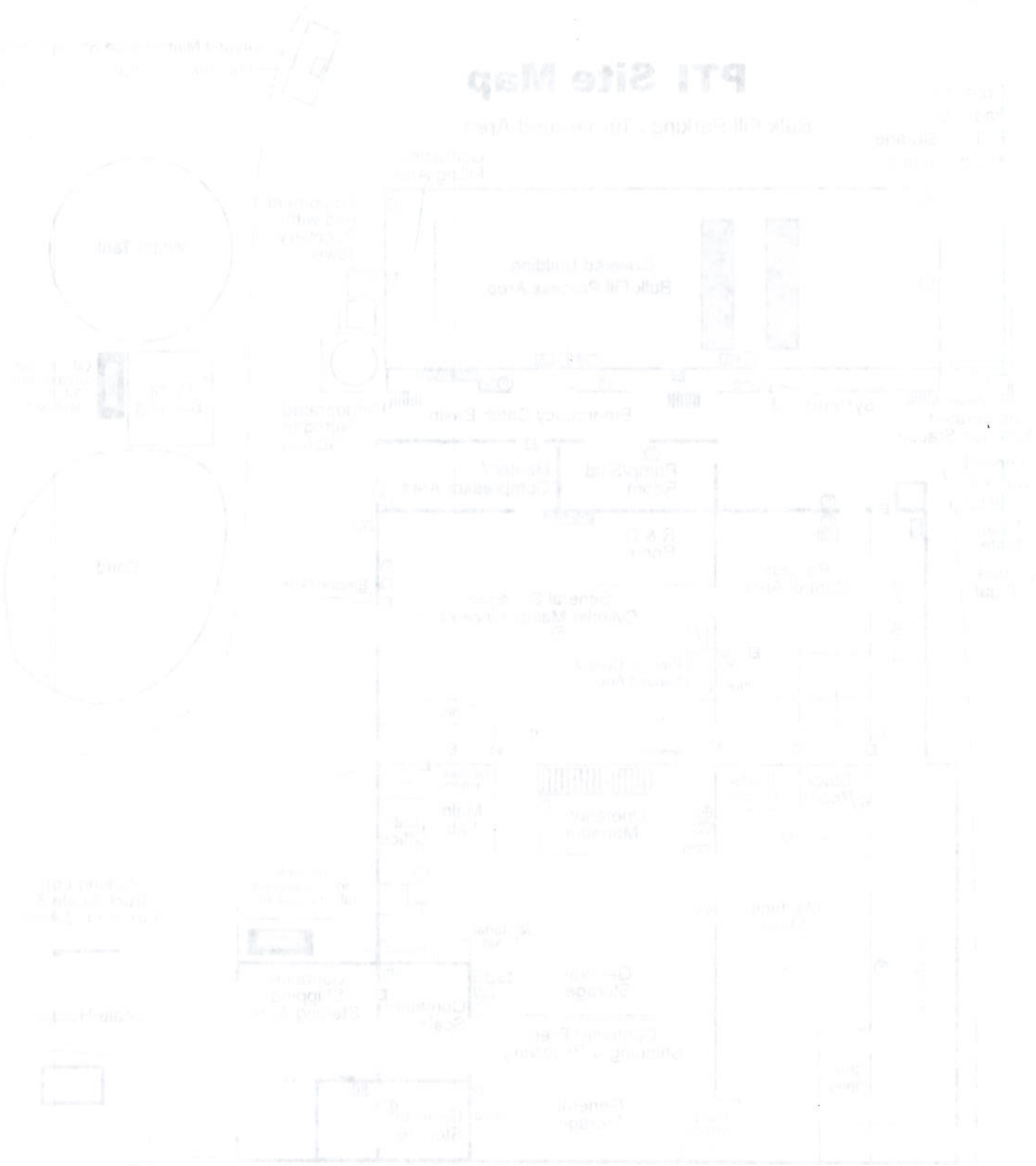
By email dated 6/29/2012, Gail Norling, Purification Technologies stated that the faded illegible labels on satellite waste containers in and outside of the lab were replaced with typewritten labels, the unlabeled universal waste containers were labeled with universal waste labels and the accumulation start date. The email also included photographs. See Attachment 1.

PTI Site Map



Quality Attachment: 7.HSPP.01-ATTACH(01)
Approved by: G.A.Richard

Effective Date -- 03/23/12



Response to Issues Noted on June 27, 2012 visit to PTI
Gail Norling
to:
Linda Brolin, Donald MacLeod
06/29/2012 09:57 AM
Cc:
"'jerryrichard'", "Alan Prince", ecruz
Hide Details
From: "Gail Norling" <gnorling@purificationtech.com>

To: Linda Brolin/R1/USEPA/US@EPA, Donald MacLeod/R1/USEPA/US@EPA

Cc: "'jerryrichard'" <jrichard@purificationtech.com>, "Alan Prince" <aprince@purificationtech.com>, <ecruz@purificationtech.com>

Please respond to <gnorling@purificationtech.com>

1 Attachment

PTI_Corrected_Issues06272012.pdf

Dear Ms. Brolin and Mr. MacLeod,

In response to the issues you observed on your June 27 visit to PTI, we have made the following corrections:

--Faded/illegible labels on satellite waste containers in and outside of lab: replaced with typewritten tape labels (see photos in attached pdf file);
--Unlabeled universal waste containers in rear storage area: universal waste labels applied with waste type and waste accumulation start date(see photos in attached pdf file);
--Unlabeled sorbent containers in storage area by machine shop: labels applied (see photos in attached pdf file)

Please let me know if you need any additional photos or information.

Best regards,

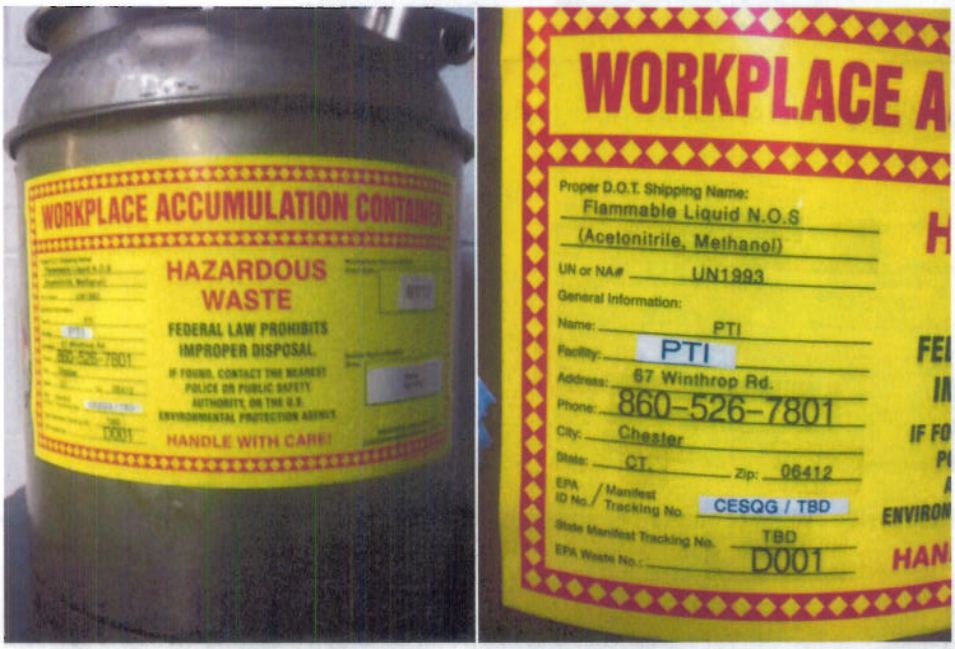
Gail Norling
Business Administration Manager
Purification Technologies, Inc.
...where purity and capability come together.
67 Winthrop Road, Chester CT 06412
860-526-7801

Purification Technologies, Inc.

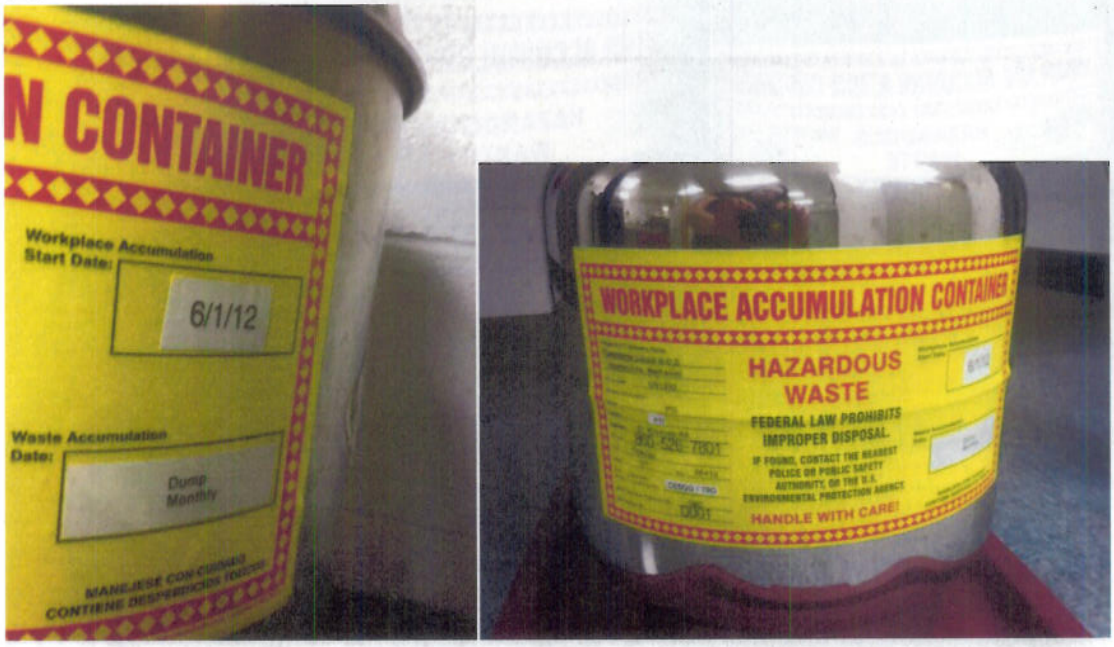
June 27, 2012 US EPA Site Visit: Corrected Issues

Satellite Waste Containers

Jerrycan outside of lab: Replaced faded writing with clear tape label



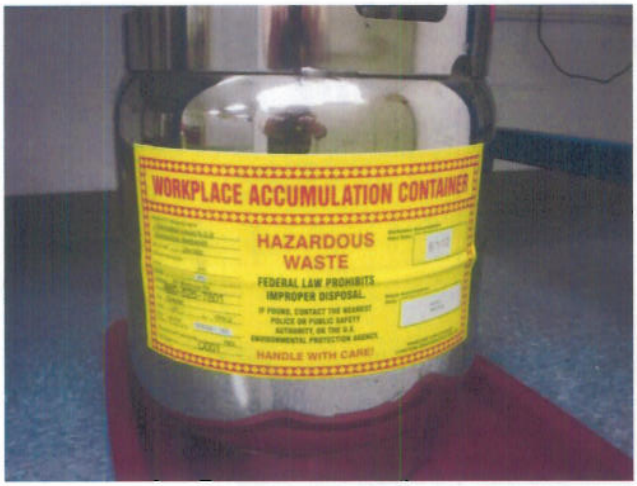
20 liter waste containers inside lab (under table): Replaced hard to read handwriting with clear tape label



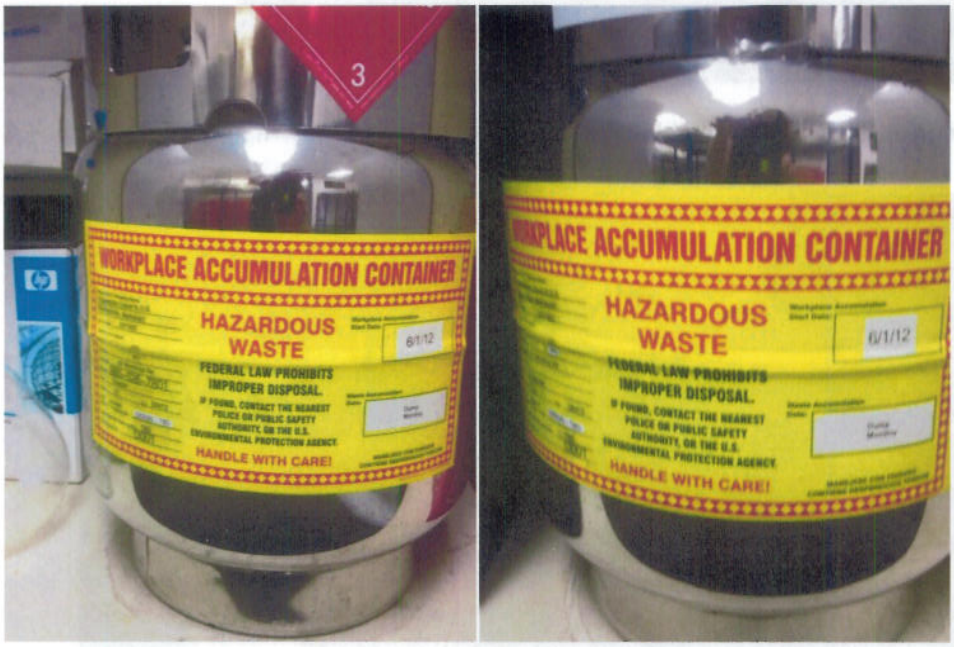
Purification Technologies, Inc.

June 27, 2012 US EPA Site Visit: Corrected Issues

20 liter waste containers inside lab under table: Replaced hard to read handwriting with clear tape label



20 liter waste containers inside lab (in cabinets): Replaced hard to read handwriting with clear tape label

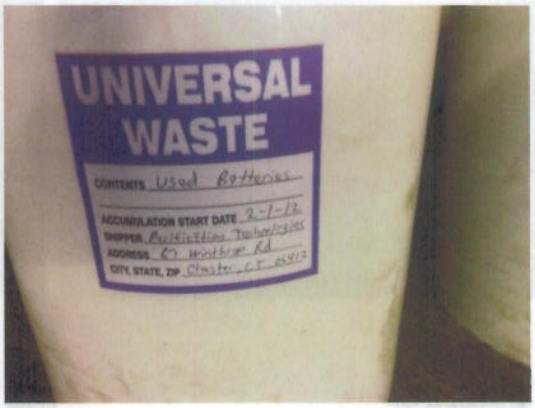


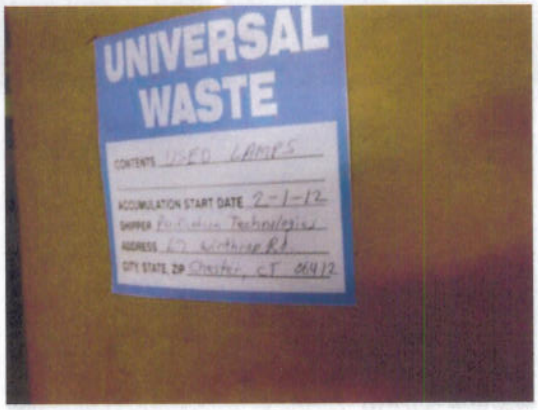
Purification Technologies, Inc.

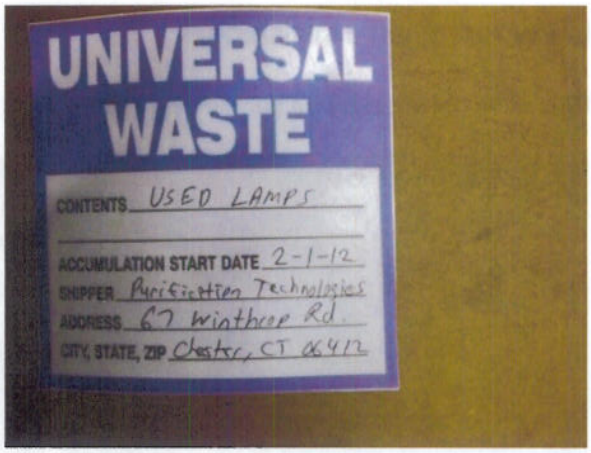
June 27, 2012 US EPA Site Visit: Corrected Issues

Universal Waste Containers

. Unlabeled universal waste containers: Added labels, waste type and accumulation start date







Unlabeled Sorbent Containers

Unlabeled sorbent containers in storage area: Added labels